

Amendments to the Claims:

The following listing of current claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A calculation method for producing a recursive digital filter, implemented in a signal processor working with integers, the method comprising:

calculating an output signal of a sample n based on an algebraic sum of input and output values of signals sampled at a selected point in time and at previous points in time, to which coefficients characteristic of the filter have been assigned;

applying a chosen scale factor to remainders of integer divisions, the remainders being a result of calculating the output values of the previous samples; and

changing a number obtained from rounding to a default integer value what is obtained from dividing the output value by the scale factor based on a number obtained from rounding to a closest integer to a real-number quotient thereof.

2. (Previously Presented) A calculation method for producing a recursive digital filter, implemented in a signal processor working with integers, the method comprising:

calculating an output signal of a sample n based on an algebraic sum of input and output values of signals sampled at a selected point in time and at previous points in time, to which coefficients characteristic of the filter have been assigned; and

applying a chosen scale factor to remainders of integer divisions, the remainders being a result of calculating the output values of the previous samples.

3. (Currently Amended) A calculation method for producing a recursive digital filter, implemented in a signal processor working with integers, the method comprising:

calculating an output signal of a sample n based on an algebraic sum of input and output values of signals sampled at a selected point in time and at previous points in time, to which coefficients characteristic of the filter have been assigned; and

changing a number obtained from rounding to a default integer value what is obtained from dividing the output value by a scale factor by a number obtained from rounding to a closest integer to ~~at~~ the real-number quotient thereof.

4. (Original) A recursive digital filter produced by using the calculation method according to claim 1.

5. (Original) A recursive digital filter produced by using the calculation method according to claim 2.

6. (Original) A recursive digital filter produced by using the calculation method according to claim 3.

7. (Original) An active sound protection system using the recursive digital filter according to claim 4.

8. (Original) An active sound protection system using the recursive digital filter according to claim 5.

9. (Original) An active sound protection system using the recursive digital filter according to claim 6.

10. (Original) A negative feedback regulation system using the recursive digital filter according to claim 4.

11. (Original) A negative feedback regulation system using the recursive digital filter according to claim 5.

12. (Original) A negative feedback regulation system using the recursive digital filter according to claim 6.

13. (Previously Presented) The calculation method of claim 1, wherein the calculating, applying and changing steps are performed during a single cycle of the recursive digital filter.

14. (Previously Presented) The calculation method of claim 2, wherein the calculating and

applying steps are performed during a single cycle of the recursive digital filter.

15. (Previously Presented) The calculation method of claim 3, wherein the calculating and changing steps are performed during a single cycle of the recursive digital filter.